

REMARKS

The Official Action mailed February 8, 2007, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Filed concurrently herewith is a *Request for Continued Examination*. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on February 20, 2004; October 11, 2005; and October 30, 2006.

A further Information Disclosure Statement is submitted herewith and consideration of this Information Disclosure Statement is respectfully requested.

Claims 1-27 are pending in the present application, of which claims 1, 6, 9, 12, 15, 20 and 24 are independent. Claims 1, 4-6, 9, 12, 15, 20 and 24 have been amended to better recite the features of the present invention. The features of dependent claim 10 have been incorporated into independent claim 9; therefore, claim 10 has been canceled. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 2 of the Official Action rejects claims 1, 4-6, 15 and 16 as anticipated by U.S. Patent Application Publication No. 2003/0032210 to Takayama. The Applicant respectfully submits that an anticipation rejection cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent claims 1, 6 and 15 have been amended to recite a memory comprising a first semiconductor film and a transistor comprising a second semiconductor film, where the memory is formed over an insulating film over which the

transistor is formed, which is supported in the present specification, for example, by the disclosure at page 12, line 27, to page 14, line 16, and Figures 4A to 4C. Takayama does not disclose that a memory is formed over an insulating film over which a transistor is formed, either explicitly or inherently.

Since Takayama does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

Paragraph 9 of the Official Action rejects dependent claims 2 and 3 as obvious based on the combination of Takayama and U.S. Patent No. 6,703,267 to Tanabe. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Please incorporate the arguments above with respect to the deficiencies in Takayama. Tanabe does not cure the deficiencies in Takayama. The Official Action relies on Tanabe to allegedly teach the features of the dependent claims. Specifically, the Official Action relies on Tanabe to allegedly teach a thin film integrated circuit device with a metal oxide as WO_2 or WO_3 (page 4, Paper No. 20070205). However, Takayama and Tanabe, either alone or in combination, do not teach or suggest the following features or that Takayama should be modified to include any of the following features: that a memory is formed over an insulating film over which a transistor is formed. Since Takayama and Tanabe do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 11 of the Official Action rejects dependent claims 7, 8, 18 and 19 as obvious based on the combination of Takayama and U.S. Patent No. 6,885,032 to Forbes. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

Please incorporate the arguments above with respect to the deficiencies in Takayama. Forbes does not cure the deficiencies in Takayama. The Official Action relies on Forbes to allegedly teach the features of the dependent claims. Specifically, the Official Action relies on Forbes to allegedly teach an IC label as a contactless type; a surface of the IC label printed with a character, a letter, text, a symbol or a diagram; a thin film integrated circuit held between a first label and a second label film, and the second label is affixed to the thin film integrated circuit with an adhesive agent; and a metal oxide adhered to the container (pages 5-6, Paper No. 20070205). However, Takayama and Forbes, either alone or in combination, do not teach or suggest the following features or that Takayama should be modified to include any of the following features: that a memory is formed over an insulating film over which a transistor is

formed. Since Takayama and Forbes do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 13 of the Official Action rejects claims 9-11, 20, 21 and 23 as obvious based on the combination of Takayama, Forbes and U.S. Patent Application Publication No. 2004/0256644 to Kugler. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

Initially, it is noted that independent claims 9 and 20 have been amended to better recite the features of the present invention. Specifically, claims 9 and 20 have been amended to recite an antenna formed from the same material as a gate electrode.

There is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Takayama, Forbes and Kugler or to combine reference teachings to achieve the claimed invention. MPEP § 2142 states that the examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. It is respectfully submitted that the Official Action has failed to carry this burden. While the Official Action relies on various teachings of the cited prior art to disclose aspects of the claimed invention and asserts that these aspects could be used together, it is submitted that the Official Action does not adequately set forth why one of skill in the art would combine the references to achieve the features of the present invention.

The test for obviousness is not whether the references "could have been" combined or modified as asserted in the Official Action, but rather whether the references should have been. As noted in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) (emphasis in original). Thus, it

is respectfully submitted that the standard set forth in the Official Action is improper to support a finding of *prima facie* obviousness.

The Official Action asserts that "Takayama also discloses use of the label with an antenna (2906 in Figure 19A and 3006 in Figure 19B)" (page 6, Paper No. 20070205). The Official Action concedes that Takayama does not teach an IC label as a contactless thin film integrated circuit; an antenna in a same layer as a gate electrode; the antenna with the same material as the gate electrode; and the antenna comprising a conductive paste (page 7, *Id.*). The Official Action relies on Forbes to allegedly teach an IC label comprising a contactless thin film integrated circuit (*Id.*). Without any specific references to Takayama or Forbes in support and without statements which establish the level of ordinary skill in the art at the time of the present invention, the Official Action asserts that: "[it] would have been obvious ... to modify Takayama to include a contactless thin film integrated circuit as in Forbes in order to allow the integrated circuit to be used for applications such as RFID tags" (*Id.*). The Applicant respectfully disagrees and traverses the above assertions in the Official Action.

The Official Action relies on features from Examples 1 and 2 of Takayama to allegedly teach the features of the claimed IC label; however, the features of Examples 1 and 2 do not comprise an antenna, such as that shown attached to the portable telephone illustrated in Figure 19A and the portable book illustrated in Figure 19B (page 23, paragraphs [0332]-[0333]). That is, Takayama does not teach or suggest a label comprising an antenna. Although Forbes appears to teach an electronic label including an RFID layer, this teaching is insufficient to overcome the deficiencies in Takayama. Specifically, the Official Action has not demonstrated a *prima facie* case of obviousness as to why one of ordinary skill in the art at the time of the present invention would modify Takayama so that the label described in Examples 1 and 2 would necessarily comprise an antenna. The Applicant respectfully submits that there is insufficient motivation to apply the electronic label including an RFID layer of Forbes to the device of Takayama to achieve the features of the present claims.

Further, the Official Action asserts that Kugler teaches an "antenna formed from the same material as the gate electrode" (page 7, Paper No. 20070205), and, without any specific references to the prior art in support and without statements which establish the level of ordinary skill in the art at the time of the present invention, that "[it] would have been obvious ... to add an antenna in the same layer as the gate electrode ... to Takayama in order to provide an identification device with an active antenna that can be deposited on a substrate with conventional printing methods" (pages 7-8, *Id.*).

However, in order to demonstrate a *prima facie* case of obviousness, the Official Action need do more than simply show a reference where an antenna is provided in the same layer as the gate electrode. The Official Action must also show why Takayama would be modified from its present form to include such features. Specifically, Takayama's antenna (2906 in Figure 19A or 3006 in Figure 19B) and Takayama's gate electrode (Examples 1 and 2) are not provided over the same substrate. The Official Action has not demonstrated why one of ordinary skill in the art at the time of the present invention would have been motivated to combine or substitute Kugler's antenna deposited on a substrate with conventional printing methods with Takayama's antenna.

Even assuming motivation could be found, the Official Action has not given any indication that one with ordinary skill in the art at the time of the present invention would have had a reasonable expectation of success when combining Takayama, Forbes and Kugler. Specifically, the Official Action has not shown a discussion in the prior art which makes clear how Takayama could have been successfully modified so that the label described in Examples 1 and 2 would necessarily comprise an antenna or how Kugler's antenna could have been successfully combined with or substituted for Takayama's antenna.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to

modify Takayama, Forbes and Kugler or to combine reference teachings to achieve the claimed invention.

In the present application, it is respectfully submitted that the prior art of record, either alone or in combination, does not expressly or impliedly suggest the claimed invention and the Official Action has not presented a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 17 of the Official Action rejects claim 12 as obvious based on the combination of Takayama, Forbes and U.S. Patent No. 6,878,643 to Krulevitch. Also, it appears that the Official Action intends to include claims 24, 25 and 27 in the rejection based on the alleged combination of Takayama, Forbes and Krulevitch (pages 11-12, Paper No. 20070205). The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

The prior art, either alone or in combination, does not teach or suggest all the features of the independent claims, as amended. Independent claims 12 and 24 have been amended to recite a transistor comprising a semiconductor film; an interlayer insulating film over the transistor; a wiring formed on the interlayer insulating film; and an antenna formed (provided) on the interlayer insulating film, which is supported in the present specification, for example, by the disclosure at page 12, line 27, to page 14, line 16, and Figures 4A to 4C. Takayama, Forbes and Krulevitch, either alone or in combination, do not teach or suggest the above-referenced features of the present invention.

Since Takayama, Forbes and Krulevitch do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained.

Also, please incorporate the arguments above regarding the insufficient motivation to combine Takayama and Forbes.

Further, regarding the alleged combination of Takayama and Krulevitch, without any specific references to the prior art in support and without statements which establish the level of ordinary skill in the art at the time of the present invention, the Official Action asserts that “[it] would have been obvious ... to add to Takayama the antenna in the same layer as the wiring in order to facilitate communication with a remote receiver” (page 11, *id.*; emphasis added). However, Krulevitch merely discloses that “[an] antenna 1104 facilitates communication with a remote receiver” (column 15, lines 53-54). Krulevitch does not teach or suggest that there is a relationship between providing an antenna in the same layer as a wiring and facilitating communication with a remote receiver. That is, the asserted motivation does not necessarily relate to the specific feature missing from Takayama. Also, Krulevitch does not teach or suggest that Takayama could or should be modified so that the label described in Examples 1 and 2 would necessarily comprise an antenna.

Therefore, the Applicant respectfully submits that the Official Action has not provided a proper or sufficient suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify Takayama, Forbes and Krulevitch or to combine reference teachings to achieve the claimed invention.

For the reasons stated above, the Official Action has not formed a proper *prima facie* case of obviousness. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Paragraph 21 of the Official Action dependent rejects claims 13 and 14 as obvious based on the combination of Takayama, Forbes, Krulevitch and Kugler. Please incorporate the arguments noted above. The alleged combination of Takayama, Forbes, Krulevitch and Kugler does not teach or suggest a transistor comprising a semiconductor film; an interlayer insulating film over the transistor; a wiring formed on

the interlayer insulating film; and an antenna formed (provided) on the interlayer insulating film. Also, the alleged combination of the four references does not cure the above-referenced deficiencies in the motivation to combine Takayama with Forbes, Krulevitch and/or Kugler.

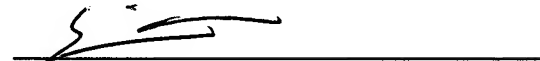
Paragraphs 23-28 of the Official Action reject dependent claims 17, 22 and 26 as obvious based on the combination of Takayama and U.S. Patent Application Publication No. 2002/0027247 to Arao, either alone or in combination with one or more of Forbes, Kugler and Krulevitch.

Please incorporate the arguments above with respect to the deficiencies in Takayama, Forbes, Krulevitch and Kugler. Arao does not cure the deficiencies in Takayama, Forbes, Krulevitch and Kugler. The Official Action relies on Arao to allegedly teach the features of the dependent claims. Specifically, the Official Action relies on Arao to allegedly teach a protective film of DLC provided on a thin film integrated circuit (pages 13-15, Paper No. 20070205). However, Takayama, Arao, Forbes, Krulevitch and Kugler, either alone or in combination, do not teach or suggest the following features or that Takayama should be modified to include any of the following features: that a memory is formed over an insulating film over which a transistor is formed; or an antenna formed from the same material as a gate electrode. Also, the alleged combination of one or more of the five references does not cure the above-referenced deficiencies in the motivation to combine Takayama with Forbes, Krulevitch and/or Kugler.

Since Takayama, Arao, Forbes, Krulevitch and Kugler do not teach or suggest all the claim limitations and since there is insufficient motivation to combine Takayama, Arao, Forbes, Krulevitch and Kugler, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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